

SAVING CHURCHLAND'S ELIMINATIVE MATERIALISM BY *INVOKING* NON-REDUCTIVE, CAUSAL MENTAL EVENTS

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Paul and Patricia Churchland's eliminative materialism (hereafter EM) considers folk psychology (hereafter FP) and other (presumably non-reductive) propositional mental events to be, or to be features of, radically false theories. As such, they will therefore be eliminated by what the Churchlands' project to be a descriptively complete neuroscience.¹ In what follows, I shall elucidate the Churchlands' position and respond to a few common criticisms lodged against EM. I do so by means of an examination of Paul Churchland's early paper, 'Eliminative Materialism and the Propositional Attitudes' (hereafter EMPA), originally published in 1981. The decision to focus on what some might consider a rather dated publication will be defended in due course and the particular importance of this 1981 paper revealed.

The statements and predictions of EMPA were made nearly 40 years ago, and yet the main framework, principles, and predictions of the Churchlands' EM remain fundamentally unaltered.² While their collaborative and independent interests have changed with the times and tides, the basic tenets articulated in EMPA continue to form the backbone of EM. Consequently, EMPA remains the best source for a clear and concise expression of EM and its framework whether one wishes to challenge, attack, or champion EM. While Patricia Churchland's work remains relevant, accessible, and accessed,³ it is the Churchlands' infamy and their supposedly laughable positions that motivate me to defend what, I suggest, are actually the simple, but fascinating consequences of EM. Moreover, there are, I propose, a number of surprising implications, interconnections, and even points of agreement between their work and those of other, perhaps unanticipated, philosophical thinkers.

In EMPA, Churchland⁴ outlines EM's projections concerning the future of FP and its components – i.e., the propositional attitudes and the conception of rationality in which they feature. Although EM has been criticized on several grounds,⁵ I shall restrict myself to what I regard as three important and

¹ Herein, all references to Simon Smith in footnotes are from personal correspondence, July and August 2020. I thank Simon Smith for pointing out that that no such complete description can be achieved. Descriptive language always allows room for the 'possibility of vagueness' or for the porousness of language use. As Smith reminds me, Friedrich Waismann called this porousness *Porosität der Begriffe* or 'Open Texture'. More simply put by Smith, 'the empirical sciences do not admit of an End Date: Knowledge by experiment simply does not work like that.' See also Waismann F. 'Verifiability' in *The Theory of Meaning*, edited by G. H. R. Parkinson. (Oxford: OUP; 1968) 35-60; and Waismann F. 'The Resources of Language' in *The Importance of Language*, edited by Max Black. (Englewood Cliffs, N. J.: Prentice-Hall; 1962) 107-120.

² See, for example, Patricia Churchland's interviews and recorded presentations (2015-2020), most easily accessed from user 'Serious Science' on www.youtube.com.

³ Mostly, I suspect, her views are relevant and accessed in a spirit of morbid curiosity, in the sense of 'What is Patricia Churchland up to these days anyway?'

⁴ Unless otherwise specified by 'the Churchlands' or 'Patricia Churchland,' 'Churchland' refers to Paul Churchland. Use of the terms 'eliminative materialism' or 'EM', however, is a broader, if implicit, reference to both Paul and Patricia Churchland. This is because the thesis or project of eliminative materialism is shared between them, and often with no clear divergence or disagreement between them.

⁵ One major criticism is that eliminative materialism is self-refuting. This is the criticism to which I attend within this paper. Another major criticism, coined the 'theory-theory' criticism or 'theory-theory' problem, pertains to and challenges the manner in which folk psychology is characterized by eliminative materialism. Following Wittgenstein, Ryle, and Dennett, contra eliminative materialism's characterization of folk psychology, folk psychology is not even a quasi-scientific theory. This is because some take the view that folk psychological attitudes are not best understood as discrete causes of behaviour, but rather, as akin to dispositional states that we utilize as heuristic stances toward others. Folk psychological attitudes are thus not candidates for elimination by any possible future findings of neuroscience.

interrelated issues. First, Churchland clearly believes that the empirical sciences⁶ undermine the legitimacy of FP. Evidence supplied by the special sciences tells a different story, however. Disciplines such as social psychology, biopsychology, biogenetics, etc., suggest that Churchland is misguided in treating much that is current scientific hypothesis as buttressing the future status of EM's predictions. Second, it is both possible and plausible that, strictly speaking, nothing neurophysical or psychological picks out FP categories or non-reductive mental events. The reasons for a lack of one-to-one token-token or type-type correspondence will be examined below. At this point, it is enough to note that should it turn out to be the case that there exist no token-token or type-type correspondence between FP attitudes and brain states, this alone would not be sufficient to negate the epistemological and metaphysical legitimacy of FP categories or other 'free-floating' 'anomalous'⁷ mental events. That is to say, FP phenomena may, nonetheless, possess explanatory power and do causal work in the special sciences, both social and empirical. Furthermore, and *contra* Churchland, the explanatory usefulness (and perhaps, so far, the ineliminability) of FP phenomena may be far from confirmatory, but it is *prima facie* evidence in favour of their metaphysical legitimacy.

These first and second issues I address aim to defend the epistemological and metaphysical ineliminability of FP and propositional attitudes within extant special sciences.⁸ Nevertheless, my position on these two issues is not intended to serve the larger goal of undermining EM. To put the point differently, it is not my aim to provide independent grounds for rejecting the coherence or future possibility of EM's predictions. Rather, my defence of FP and propositional attitudes serves primarily to expound the complicated relations between FP and EM and, perhaps more interestingly, to demonstrate that should the thesis of EM be vindicated by some future neuroscience, then FP and its propositional attitudes will have played an ineliminable role in their own elimination.

The third of the interrelated issues I explore will be an attempt to defend EM by exploring what I take to be the strongest and most interesting argument against it, namely that it is self-refuting. I argue that if the EM project fails, it will not be because it is a self-refuting program. Instead, (i) I suggest that if EM fails, it will be because future scientific discoveries will deem the usefulness, as well as the explanatory and predictive power of what EM predicts the sciences to one day eliminate, to be, *contra* EM, 'scientifically respectable' – i.e., to be empirically legitimate events/processes.⁹ To put the issue more simply: EM predicts that X will be eliminated. Suppose X is not, as a matter of fact, eliminated; therefore, EM would fail in its program. It *is* possible, of course, that what EM predicts to be eliminable may turn out to be ineliminable. Yet, whatever the future reveals, a project's abductive inferences being proven false in a time to come is not synonymous with a project's being self-refuting.⁹ I note that this issue raises questions about the relationship between 'usefulness' and 'truth'. For instance, is it possible that EM might fail because its predictions are not useful, but EM is nevertheless true? While this is a serious question in need of further exploration, the question is beyond the scope of this paper.¹⁰

On a different but related note, and one which I think is far more interesting, I attempt to defend EM from the charge of self-refutation. I attempt to do so by underscoring that the success or failure of EM's projections about what future, 'neuroscientifically-informed' human-to-human communication might be like or which mental processes end up on a master list of what is considered 'neuroscientifically respectable,' is actually independent of EM's general metaphysical and epistemological framework. Contrary to misattributions and mischaracterizations of EM, neither Churchland in EMPA or Patricia Churchland in her most recent interviews concerning EM suggests

⁶ It must be acknowledged that Churchland writes of 'the sciences' in far too imprecise a manner in EMPA. Unfortunately, however, this issue is beyond the scope of this paper.

⁷ Here, my use of 'anomalous' is consistent with that of Donald Davidson's Anomalous Monism.

⁸ Though I would perhaps also argue for such ineliminability in other descriptions/discourses, this issue is beyond the scope of this paper.

⁹ Thank you to Simon Smith for pointing out, quite succinctly, that self-refutation is a matter of meaningfulness while predictions concern (putative) facts.

¹⁰ Thank you to Simon Smith for pressing this question.

that FP attitudes or other mental categories/phenomena/events (to-be-refined or rejected by some future neuroscience) are *currently* causally inefficacious or *contemporarily* non-contentful. In other words, the Churchlands seem to be suggesting or implying that intending or act-ownership could be causally effective and meaningful today, but that this could change in the future, and also, that concepts or categories like ‘intending’ and ‘act-ownership’ might be causally effective and meaningful today, but may not be in the future. Indeed, in EMPA, Churchland implicitly acknowledges that *only* minds that currently use what EM deems to be apparently unsophisticated intentional, conscious capacities and modes of human-to-human communication (to be updated by some future neuroscience) can transform themselves into electing to move towards understanding how to begin to, and continue to think and communicate partially or maybe even solely, by means of EM-sanctioned states of mind and linguistic exchange. This process can only be undertaken through reason giving practices, which take the form of propositional exchanges, the very attitudes EM projects will, *one day*, be eliminated by us through means of propositional exchanges.

According to EM, propositional attitudes will be replaced by EM-sanctioned states/languages. In EMPA, Churchland entertains the possibilities of languages, which the Churchlands predict will supplant our current intentional, conscious cognitive processing and interpersonal communication. Hence, I argue along with, but in a manner different than Churchland himself, that (ii) if EM’s predictions come true, FP attitudes will have played a starring role in future, neuroscientifically-updated human cognitive processing and human communication. It would seem that, in accordance with the implicit argument of EMPA, it is both human cognitive processing that will become ‘neuroscientifically updated’ and our *understanding of* human cognitive processing that will become ‘neuroscientifically updated’. The first position seems to entail some quite radical alterations to how we behave and, as a corollary, what we are. The second may not have radical implications if future understanding does not lead to radical changes in our lived and practised cognitive processing. My argument is that the use of FP attitudes to one day usurp FP and propositional attitudes is not tantamount to a performative contradiction. Rather, it would be a performance of fancy mental footwork representative of a move on our part towards replacing FP attitudes with another or other forms of cognizing.

In EMPA, Churchland emphasizes that to argue for FP is to argue for an empirical *theory*. FP, as described by its defenders, ascribes to subjects propositional attitudes and presupposes laws or generalisations about those attitudes to explain and predict subjects’ behaviour – for instance, *ceteris paribus*, $(x) (y) ((x \text{ loves } y) \rightarrow (x \text{ does not wish } y \text{ harm}))$.¹¹ According to Churchland, the structural features of the generalisations or laws of FP and the natural sciences are identical, the difference consisting only in the type of abstract entities involved – ‘numbers in the case of mathematical physics and propositions in the case of psychology.’¹² He grants that FP is somewhat successful in explaining and predicting behaviour since we share a tacit understanding of ‘the same integrated body of lore concerning the law-like relations holding among external circumstances, internal states, and overt behaviour.’¹³ Churchland remains silent on the aetiology of this shared tacit understanding. The issue with FP, as Churchland frames it from 1981 forward, is how the ontology of FP is related to that of some future neuroscience, or to put his point differently, what ‘future research will reveal about the

¹¹ Though the following challenge does not attack Churchland’s position, but rather serves, in a way different than Churchland’s manner, to cast doubt on the reliability/cogency of many taken for granted folk generalisations, I take the challenge posed by Simon Smith to be worth glossing in full. Contra the FP generalisation that, *ceteris paribus*, $(x) (y) ((x \text{ loves } y) \rightarrow (x \text{ does not wish } y \text{ harm}))$, ‘people being what they are, it is perfectly possible and, I suspect, really rather commonplace to both love and hate the same person at the same time.’ The generalisation that, *ceteris paribus*, $(x) (y) ((x \text{ loves } y) \rightarrow (x \text{ does not wish } y \text{ harm}))$ ‘is a generalisation, but it is a generalisation designed to support a particular argument. It is also an idealisation, the sort we all agree *ought* to be true but quite possibly is not.’

¹² Paul Churchland. ‘Eliminative Materialism and the Propositional Attitudes.’ p. 71.

¹³ Ibid. p 69.

intertheoretic status and integrity of folk psychology.’¹⁴

Unlike identity theorists, dualists, or functionalists, Churchland’s brand of eliminativism argues that our ordinary FP categories will prove ‘too confused and too defective’ to remain scientifically respectable, and accordingly, will be eliminated and replaced with better entities in the course of intertheoretic reduction.¹⁵ For Churchland, since coherence with the rest of the total body of knowledge¹⁶ constitutes ‘the final measure of any hypothesis,’ FP will prove inconsistent when viewed alongside evolutionary theory, biology, and neuroscience.¹⁷ It is worth noting here that it is unclear whether Churchland actually intends the ‘total body of knowledge’ to be tantamount to the findings of evolutionary theory, biology, and neuroscience. In any case, Churchland underscores that there is much that FP has not explained like sleep and ‘the faculty of creative imagination,’ for instance, and hence, he characterizes FP as, at best, a highly superficial theory ‘only negligibly better at explaining human behaviour in its terms than was Sophocles.’¹⁸ Churchland, in other words, is sceptical of the notion that rationality in particular, but also a host of other cognitive states (and many other non-EM champions also agree), is exhausted in the form or at the level of propositional attitudes. Language, for instance, is a ‘peripheral activity,’ learned and used ‘by a brain already capable of vigorous cognitive activity that evolution has shaped for a great many functions, language use being only the very latest.’¹⁹

In EMPA and post-EMPA, the Churchlands seem to think that FP, and by extension, any purportedly ‘causally efficacious and non-reductive’ proposals of mental events, must be transcended and a more ‘serious’ study by means of neuroscientific investigation must commence. Churchland’s speculations concerning what a neuroscientifically-informed picture of cognition might be like in EMPA are aimed to ‘break the grip on our imagination’ held by the hang ups of neuroscientists and philosophers of mind on FP, as well as on any other supposedly causally efficacious, but

¹⁴ Ibid. p. 72.

¹⁵ Churchland. p 72. Thank you to Simon Smith for raising the plausible question of what or who is at stake here. To put the point differently, one might press Churchland with the following questions. Is he claiming that the sciences, and specifically neurosciences, will have to give up FP talk? Alternatively, is he claiming that we all have to give up FP talk (and use)? In the latter case, Churchland would be, perhaps implausibly, suggesting that giving up talk of FP in the neurosciences should and could regulate the use and development of human language and cognition writ large.

¹⁶ Once again, thank you to Simon Smith for acknowledging an ambiguity in Churchland’s use of the term ‘knowledge’ here. As Smith argues, if by ‘knowledge,’ Churchland means ‘science,’ then it seems that quite a lot of knowledge might have to be left out as ‘incoherent’. If it means something like ‘all the knowledge we have as a species,’ then it is not obvious that the ‘total body of knowledge’ really coheres very much at all.

¹⁷ Churchland. p. 73.

¹⁸ Ibid. p. 74.

¹⁹ Ibid. p. 83. Thank you to Simon Smith for the following insight, which is worth quoting in full, as it lodges a strong objection against the eliminative materialist program. ‘We are not just talking about a brain, however well it is allegedly evolved, but a particular kind of creature, which we might, for want of a better word, call a ‘person’ or a ‘human’. That is to say, the reduction by eliminative materialists of persons or humans to brains appears to have already taken place right here, since, presumably those who favour folk psychology also assert a conception of persons as being, in some sense, *more* than an evolutionarily shaped brain. That is, one might fairly make the case that language use – more properly, symbol use – is at least part of what makes us human and conscious in the special sense that we appear to be (i.e. in a way different to non-human animals). However, if we are to start by describing language use as a ‘peripheral activity’ and therefore, presumably not an essential one, then we have done the work of eliminative materialism before we have even got started.’

non-physically reductive processes of the mind.²⁰ Entertaining, for example, the possibility that human cognition will mesh with evolutionary biology and non-equilibrium thermodynamics, Churchland notes that we might one day ascribe cognitive states ‘as figurative solids within a four- or five-dimensional phase space’ with laws governing those states’ internal relationality, motion, and change, as well as their relations to the system’s sensory and motor transducers.²¹ On such an account, propositions to which speakers would give assent represent *but one-dimension* of the internal economy and thus fail to represent ‘reality in *all* its kinematically, dynamically, and even normatively relevant respects.’²²

EM does not seem to seek to eliminate, or necessarily think it possible, to eliminate meaning or intentionality from cognition, but rather, appears to aim to emphasize that FP attitudes are but one manner in which to cognize and by which to communicate, and are, moreover, likely replaceable by more effective languages.²³ Churchland’s claim in EMPA is that any future neuroscientifically updated, and thus respectable, generalisations and normativity would need to be defined, not over the propositions of FP, but ‘over different and much more complex kinematical states and configurations.’²⁴ A host of other possible scientifically updated transformations are perhaps possible. I note, of course, that the only things we might know to be possible at present are those things that are actual. This is to say that the things which really exist (in whatever sense) are the only things we *know* to be possible existents. In the context of the philosophy of mind today, the status of the actual is itself far from settled. While the Churchlands are indeed proposing ‘neuroscientifically-informed’ forms of human cognition and language that are not yet actual or do not seem to be forms of cognition or language which exist (or are perhaps meaningful) in the present, it follows, strictly speaking, that we cannot know whether the Churchlands’ proposal concerning language are possible, but nor can we know that they are impossible. Only the future might vindicate or damn the current proposals of EM or any other theory postulated in the philosophy of mind.²⁵

One need not advocate for EM to argue that, in attempting to uncover human cognitive architecture (i.e., true propositions about the philosophy of mind), especially relating to behavioural explanation and prediction, propositional attitude ascription alone is too narrow to capture the totality of minds’ and a given person’s practices and internal mental processes. It seems we do more than attribute mental states *qua* propositional attitudes to others to explain or predict their behaviour. For instance, we may attribute personality traits such as being lazy, selfish, and so on.²⁶ This is to say that people are usually more than a collection or a series or sequence of propositional attitudes. We also ascribe to others such attributes as character, motive, history, aspiration, etc.²⁷ Of course, FP does not and need not claim to have ‘the theoretical purpose of describing the ultimate nature of human psychological organization’ as a goal in order to retain metaphysical, and less contentiously, epistemic

²⁰ Churchland. p. 84.

²¹ Ibid. pp. 84-85.

²² Ibid. p. 85. My italics added for emphasis.

²³ Simon Smith notes the following: ‘This is a much more subtle view, I think, than we usually get in these kinds of discussions. Whether that is the nature of academic debate or because one or both sides prefer to caricature [...] I do not really know. However, it is really very obvious that this is the sort of thing our species has been doing all along. For example, although we *can* still describe the world in terms of spirits and small gods, the Romans’ *lares* and *penates*, very few people would take such descriptions literally. It is entirely possible that folk psychological talk will go the same way and it doesn’t seem unreasonable to suggest it.’

²⁴ Churchland. p. 85.

²⁵ It is worth noting that in the philosophy of mind, simulation theory postulates that nothing can determine, once and for all, the ultimate truth about the metaphysics and epistemology of the mind.

²⁶ Kristin Andrews. ‘It’s in Your Nature: A Pluralist Folk Psychology.’ p. 26.

²⁷ Thank you to Simon Smith for reminding me of this important point.

legitimacy.²⁸ This is because FP may have the important practical epistemic goal of explaining, describing, and predicting (at least approximately) human behaviour.

Novel theoretical considerations or musings need not trump practical concerns. For elucidation of this point, suppose I am a FP proponent (as a theorist and/or an everyday user of FP attitudes). What am I trying to do with FP attitudes? Am I attempting to capture and present a cogent theory of the philosophy of mind? Am I attempting to diagnose a person's psychological difficulties? Am I attempting to decide on an appropriate gift for my wife? These questions might seem to point to a difficulty in the EM project, namely the implication that EM and FP do the same job(s) and that, therefore, FP can be replaced by EM. However, it is not entirely clear, perhaps, that this is plausible. FP appears to have a wider and, often, more practical and ordinary range of applications than EM. If so, and on such grounds, the elimination of FP may be argued to be inappropriate.²⁹ However, Churchland emphasizes that it is not inconceivable that some and eventually all of the population might become familiar with 'the new [i.e., non-FP reliant, non-propositional] vocabulary,' giving the new, EM mode of cognition and language currency, and, in turn, gradually reducing or even eventually banishing FP's ontology and epistemology entirely.³⁰ The Churchlands are not arguing that the ways in which we have thought and talked about the human mind for millennia will turn out to be wholly at odds with whatever really explains the way the mind works. If this were their position, they would have a hard time explaining why, so far, modes of human cognition have proved successful (i.e., we manage to communicate between one another, have produced amazing artefacts, have seemingly made progress in the sciences, etc.). But this is not their position. Rather, the Churchlands are suggesting that human cognition and language might be *transformed* and *improved*.

In EMPA, Churchland anticipates objections to his program's predictions, framework, and assumptions. He also considers the existence of competing programs and their relative respectability despite their reliance on FP. One attempt to defend EM undertaken by Churchland is thus to underscore what he takes to be the shortcomings of a very popular competing program, namely functionalism. Since it is a real possibility that heterogeneous physical bases give rise to states occupying the same functional role (i.e., pain, goal-directedness, empathy, etc.), the functionalist argues that one cannot eliminate functional characterizations since they are individuated, not at the level of neural instantiation, but at a 'higher level,' namely, the level of functionality. Churchland's complaint in EMPA is that functionalism defines itself in such a way as to make it impossible for empirical evidence to ever impinge upon functionalism's territory, therefore, *by fiat*, preserving the legitimacy of ordinary FP categories.³¹ According to Churchland, the irreducibility of intentional idioms is not sufficient reason to celebrate their *bona fide* 'functional' status or the '*sui generis*' nature of FP. This is because to suggest that it *is* sufficient is to beg the question and presuppose that it *is* the 'intentional idioms of FP... that express the important features shared by all cognitive systems' and so, also to presuppose that if the language of a future, more 'enlightened' neuroscience fails to conform to functionalism's or to FP's dictates, then so much the worse for neuroscience.³² A proponent of EM argues that one could just as well eliminate functional characterizations and all of FP itself for failing to correspond to any real (read: physical) kinds or syntactic processes.

In response to Churchland, while it is indeed possible that nothing neurophysical or even psychological plays the single role of say, fear, as outlined by FP,³³ it does not follow that the psychological category of fear should therefore be eliminated. One might suggest instead, for instance, that this recognition simply calls for 'finer-grained distinctions among different types of

²⁸ Barbara Hannan. 'Don't Stop Believing: The Case Against Eliminative Materialism.' p. 170.

²⁹ I thank Simon Smith for the spirit and letter of this objection.

³⁰ Churchland. p. 86.

³¹ Ibid. p. 78.

³² Ibid. p. 82.

³³ Muhammad Ali Khalidi. 'Against Functional Reduction in Cognitive Science.' p. 326.

fear.’³⁴ To drop the category altogether would irresponsibly ignore the similarities that different kinds of fear have in common.³⁵ And, as the biologist or social scientist might claim, generalisations about fear (understood as a broad category encompassing fear1, fear2, and so on) may have explanatory value and feature in causal explanations in larger useful and predictively respectable theories regardless of the category’s metaphysical status.³⁶ In other words, even if a psychological category corresponds to nothing particular at a psychological level (never mind at a neurophysical level), elaboration of finer-grained distinctions among psychological categories may contribute to the sophistication of our explanatory and predictive practices as opposed to serving as a reason to eliminate the category entirely.

Similarly, Churchland argues throughout EMPA that evolutionary theory serves to vindicate the legitimacy of EM and points to the incoherence of FP and causally efficacious non-reductive or emergent mental states. However, the basic theory of evolution as described by Darwin and especially its various modern branches (evolutionary biology, evolutionary psychology, etc.) may actually serve to undermine the case for EM. Take one example from evolutionary biology: When complex systems are at issue, it seems some problems cannot be ‘got around even by spectacular breakthroughs in more basic sciences.’³⁷ Some facts about sickle cell anaemia, for instance, cannot be reduced to the laws of chemistry, since while it is true that ‘normal parents produce abnormal offspring because they reproduce sexually,’ one cannot recast this claim in purely chemical language.³⁸ Some properties and causal processes are capturable *only* at a ‘higher level’ of description.

Turning to a different theme, Churchland points out that FP is sometimes defended on the grounds that it is not an empirical theory, or less strongly, is not refutable by empirical considerations and hence, cannot or ought not ‘be transcended in the fashion of a defunct empirical theory.’³⁹ Characterised by normativity, FP characterises ‘an *ideal*, or at least praiseworthy mode of internal activity’ that explains in what the having of propositional attitudes consists and ‘what it is to be rational in their administration.’⁴⁰ In other words, FP presupposes what human rationality amounts to using the language and framework of FP. Insulating itself by recourse to the terms it has already set out in the language and framework of FP (what it means to count as rational, for instance), it is insulated from external (non-FP theoretical) criticism. Churchland argues that the regularities attended to by FP are ‘predicated on certain logical relations among propositions is not by itself grounds for claiming anything essentially normative about FP’ since otherwise, one might as well say that the classical gas law is normative in the sense of being praiseworthy.⁴¹ In other words, ‘logical relations between propositions are as much an objective matter of abstract fact as are arithmetical relations between numbers;’ the normative dimension of FP only seems to capture the sense that *we*, current users and holders of FP attitudes, happen to value the logical relations between propositions (because we are current users and holders of FP attitudes).⁴²

For Churchland, the logical relations between propositions are merely constitutive of our non-ideal conception of rationality – none of us even has any notion of what *bone fide* rationality amounts to since we are, on his view, epistemically stuck, quite literally, in our heads and their processes and

³⁴ Ibid. p. 328.

³⁵ Ibid. p. 329.

³⁶ Ibid. p. 331.

³⁷ Patricia Kitcher. ‘In Defense of Intentional Psychology.’ p. 107.

³⁸ Ibid. p. 103. As Simon Smith reminds me, the logical positivists had the same problem when they tried to translate talk about objects into sense data reports.

³⁹ Churchland. p. 76.

⁴⁰ Ibid. My italics added for emphasis.

⁴¹ Ibid. p. 82.

⁴² Ibid.

with the results of data that can only be interpreted by our heads and their processes.⁴³ Here, one might object that it is not heads and processes that interpret things, but rather *people* that do. Interpretation undertaken by people requires a whole social, cultural and physical context. Moreover, knowledge (if we have any) is a function of our interactions with the world. Knowledge acquisition and analysis is a social activity insofar as all the tools we use are internalised forms of external dialogue. Knowledge acquisition and analysis take place in communities. Indeed, the very writing of this paper is evidence that one's knowledge or beliefs need not remain in one's head. The writing of this paper has made my thoughts public.⁴⁴

Still, we have arrived at perhaps no more than an epistemic and metaphysical cul-de-sac. With no view from nowhere from which to determine how to proceed in philosophy of mind, philosophy of mind seems nothing more than a philosopher's game. Being unable to do anything other than play the game, however, I suggest that what is particularly fascinating about EM is that it, in principle, provides a way out of the cul-de-sac (even if not out of the status of a 'mere' philosopher's game). The implicit ladder out of the cul-de-sac is Wittgensteinian in style and is specifically *Tractatus*-like in spirit. Furthermore, the ladder out, relates, I think, to the misunderstanding that EM is self-undermining or even self-refuting. Thus, let us turn now to the issue of the supposed self-contradiction that is often argued to be the very articulation of EM.

Churchland takes the most pressing objection against EM to be that it is self-refuting. If it is pressing, it is also common. Specifically, the objection, as Churchland states it, is that EM can only be expressed as a belief, or as an account or theory, which is *intended* to be communicated and *understood*, and 'damningly,' *using* knowledge of grammar and natural language.⁴⁵ Churchland articulates the charge as follows:

If the statement of [EM] is true, then there are no such states to express. The statement at issue would then be a meaningless string of marks or noises. It would therefore not be true. Therefore it is not true. Q.E.D.⁴⁶

Churchland responds that such a *reductio* simply assumes a particular theory of meaning, begging the question of the legitimacy of FP over EM.⁴⁷ Here, one might add that whatever theory of meaning we adopt, we still must contend with which theory of action, too, is intended or in play since on some theories, all statements do, or intend to do, something. To cash out Churchland's own response to the initial objection, however, he analogises the *reductio* to the seventeenth century debate about the existence of vital spirits. If the anti-vitalist argued that vital spirits did not exist, his claim was taken to be self-refuting since if his claim is true, then he must be dead and, hence, his claim is not meaningful.⁴⁸ Churchland's argument is that the propositional attitudes, like vital spirits, are not a priori insulated from empirical considerations; their transcendence is both possible and representative of a very interesting theoretical displacement.⁴⁹ But this quick analogy on Churchland's part fails to really engage with the objection.

Jürgen Habermas' long-standing concern with the participant's perspective, the perspective from which the exchange of reasons *qua* propositional attitudes takes place in scientific inquiry, adds an interesting twist to the question of whether EM is self-refuting. Contrary to popular opinion, Habermas' program is not one which recommends the philosophically unsatisfying position of only a

⁴³ Ibid. p. 83.

⁴⁴ Thank you to Simon Smith for offering these important insights.

⁴⁵ Churchland. p. 89.

⁴⁶ Ibid.

⁴⁷ Ibid.

⁴⁸ Ibid. pp. 89-90.

⁴⁹ Ibid. p. 90.

mutual non-aggression pact between neuroscience and FP, non-reductive, or other ‘emergent’ and yet purportedly casually efficacious brain states. Such a mutual aggression pact would hold that FP and EM continue to operate in different discourses or that they can both have explanatory value within the same discourse. Instead, as is most clearly articulated in *Between Naturalism and Religion* (2008), Habermas, much like John McDowell, recommends that what qualifies as ‘natural’ be extended from the grip of scientific standards, which as we shall see, amounts to a philosophically and scientifically responsible position. Let us be clear, however: This Habermasian insight does *not* refute EM, but, perhaps surprisingly, elaborates on what can be said about the intimate connection between EM and status of propositional attitudes even if, in the end, *we* (theorists of cognitive science, neuroscience, or the philosophy of mind and/or everyday people) eliminate the latter.

À la Habermas, our practices, such as our use of FP, are at once contingent in the sense that they arose out of the natural evolution of the human species and also, in a weak sense, are transcendentally necessary – this is to say that they have, *thus far*, been unavoidable. In ‘The Language Game of Responsible Agency and the Problem of Free Will’ (2007), Habermas claims that, with respect to the project of scientific inquiry itself, sociality (the participant’s perspective) and the game of giving and asking for reasons in the form of the exchange of propositional attitudes with meaningful content cannot be, or to state the point more weakly, has *thus far* not been avoided. Habermas does not therefore present a rigorous challenge against EM’s program. Rather, his program seems to complement EM’s projections insofar as Habermas’ position does not argue, and is not intended to present arguments against, EM or against any other possible theory or future modes of human cognizing/forms of language that might come to emerge in time. Before attempting to save the, in principle, viability of EM’s project via Habermasian insights, let me first, in a slightly different way than Churchland presents the *reductio* against his own position, put forth against EM a roughly Habermasian-spirited charge of engagement in self-refutation. While this charge is indeed a charge, it is admittedly weak, and later, I will ultimately seek, not to undermine the Habermasian-themed objection so much as turn the objection on its head to reveal how what initially seems like an objection can indeed also act as a buttress for EM’s project and perhaps even as a condition of EM’s success.

To reiterate, EM is a theory that aligns itself, as EMPA repeatedly proclaims, with ‘the results of scientific inquiry’ and is a project that seeks to undermine FP attitudes. Using Habermas’ emphasis on the transcendental ineliminability of the participant’s perspective in the process of scientific inquiry, I will now elucidate the manner in which EM is involved in a performative contradiction.

Let us examine this new performative contradiction carefully. First, *à la* Habermas, scientific inquiry is conducted by means of cooperative effort in which the exchange of reasons, in the form of propositional attitudes, has currency. Second, ‘[r]eality is not exhausted by the totality of scientific statements that count as true according to current empirical scientific standards.’⁵⁰ Reality’s reach extends from the physical to the symbolic, whether the latter be reducible to the physical or not, since both are part of, and arose out of, nature. A full account of nature must include explanations regarding everything from ‘how the elephant got its trunk... [to] how the West got particle physics.’⁵¹ Echoing Robert Brandom’s program, reasons are inferential and criticisable: They are amenable to evaluation from other reasons. Even our decision to count certain things as laws is dependent on *our* non-strictly nomological reason-giving practices. The reasons we give in the form of natural language are causally efficacious insofar as anyone who understands or aims to understand or evaluate a reason was caused to initiate attempting to understand or evaluate the reason by the actions of another. Turning to Quinean scientific confirmation, the degree of confirmation assigned to any hypothesis is sensitive to the properties of the entire body of knowledge and confirmation is isotropic. When abduction or theory acceptance occurs in science – or any other form of enquiry – it requires a *community* of thinkers to consider the empirical evidence, i.e., a community that engages in the exchange of contentful reasons (in the form of propositional language) about how best to explain it. Hence, it seems that EM utilizes contentful statements (*intended* to be understood), but also that the findings of

⁵⁰ Jürgen Habermas. *Between Naturalism and Religion*. p. 153.

⁵¹ Richard Rorty. ‘The Very Idea of Human Answerability to the World: John McDowell’s Version of Empiricism.’ p. 152.

the sciences to which EM points as evidence for FP's banishment require, for now, the exchange of casually efficacious propositional attitudes or mental states to be formulated and their findings to be discovered or accepted. To put the point differently and to repeat a claim made earlier in this paper: Knowledge acquisition and analysis is a social activity insofar as many or maybe even all of the tools we use are internalised forms of external dialogue. Knowledge acquisition and analysis take place in communities. If EM is to be vindicated, this would require the practice of giving and asking of reasons between thinkers, which, at least initially, would be conducted in the form of propositional attitude exchange.

The first horn of the problem, specifically, that EM itself utilizes contentful statements (*intended* to be understood), does not pose a strong challenge to EM. One might object here that the Churchlands' counter that 'EM may not seem plausible or make good sense now, but one day it might' is itself a weak position, but whether or not their position is weak is not my main interest. My interests are, rather, to show that EM can avoid the charge of self-refutation and, moreover, that other programs (such as that of Habermas) complement and bolster EM's ability to avoid the charge. The Churchlands only *predict* the eliminability of FP; they do not dismiss the current existence, use, or necessity of FP and propositional attitudes in our current cognitive processes. The second horn – the ineliminability of FP from current scientific practice⁵² – presents a more serious challenge to the Churchlands. In EMPA, Churchland is entirely silent upon the current ineliminability of FP and the exchange of propositional attitudes between thinkers within the practice of science itself. Since his program relies heavily on the results of scientific inquiry – current and especially future – this oversight, is more damning.

To flesh out this last problem EM faces, let us turn to an exchange between Habermas and John R. Searle in their respective papers, 'The Language Game of Responsible Agency and the Problem of Free Will: How can epistemological dualism be reconciled with ontological monism?' (2007) and 'Neuroscience, Intentionality and Free Will: Reply to Habermas' (2008). In this exchange, Searle seeks to counter the Habermasian characterization of the seeming cannot-be-gotten-aroundness, at least for the time being, of human propositional attitudes. In this context, Searle writes, 'on our little planet, there exists intentional and conscious beings that have created meanings and these beasts investigate nature and have stances toward it,' but the stances generally do not affect the things they are stances toward.⁵³ As Searle continues, 'the fact that a view is always from somewhere implies nothing about the reality [a reality which, *ex hypothesi*, is epistemically always out of reach] that is always viewed from somewhere.'⁵⁴ He argues that 'this confusion of epistemology and ontology... is... very much a part of the phenomenological tradition.'⁵⁵ However, contra Searle, the fact that a view is always from somewhere does say something about 'the reality that is viewed from somewhere.' It says something about the experience of human beings who are themselves part of nature, who, incapable of taking a view from nowhere, notice that the situatedness of perspectives is something that cannot be got around. It is *as* human beings 'situated in the world and capable of speech and action... [that we] seek out, from within the horizon of our own lifeworld, the best possible cognitive access to the objective world.'⁵⁶

Contemporary scientism counts as real and as explanatorily necessary only that, which is entirely subject to strict micro-physical causal relations. However, accommodation in nature must be found for, and a full metaphysical account of all that exists must include, scientific and even scientific practice, where even in the latter case, reasons and meaningful statements made to articulate the very positions, *so far*, take the form of propositional attitudes. Scientism seeks to reduce that which is

⁵² Or, as Simon Smith aptly reminds me, as Austin Marsden Farrer put the point in his 'Gifford Lectures' (1958), 'meaning governs the formation of discourse.'

⁵³ Searle. 'Neuroscience, Intentionality and Free Will: Reply to Habermas.' p. 74.

⁵⁴ Ibid.

⁵⁵ Ibid.

⁵⁶ Habermas. 'The Language Game of Responsible Agency and the Problem of Free Will: How can epistemological dualism be reconciled with ontological monism?' pp. 34-35.

‘natural’ or ‘real’ to whatever meets the criterion/criteria of neural or physical reduction. Certainly, human beings are shaped by causes, but they are also shaped by symbolic relations. As McDowell refers to this state of the being of human beings in *Mind and World* (1994), this is a ‘second nature,’ which is part of the natural evolution of our species. As many personalists have been stressing for hundreds of years, human beings are socialized into being agents with propositional attitudes. In this sense, while FP may indeed be a contingent practice and a social construction (perhaps to be updated or even supplanted by future conscious or unconscious cognitive mental habits/processes), this is not tantamount to declaring FP or FP attitudes as epistemically void or illusory. One must recall that Churchland himself holds the position that, currently, FP is *one* dimension of the totality of what is going on inside our heads, though he fails to emphasize that propositional exchange is a large component of human-to-human communication in scientific and non-scientific contexts alike. Perhaps time and tide will reveal that paying attention to the other dimensions and/or creating new dimensions (at the expense of FP) is a better, i.e., a more cognitively virtuous course of action.

As Searle argues, there is ‘no problem in general in proceeding on the basis of a presupposition which, in the end, the investigation proves to be false.’⁵⁷ Using this principle, one also finds an argument to save Churchland from the charge of committing a performative contradiction. Whether or not Churchland’s predictions about the fate of FP and propositional attitudes turn out to be accurate, Churchland has no other option in the here and now but to *use* propositional attitudes to argue that a *replacement* of FP with a better theory is possible. Just as Wittgenstein claims in 6.54 of *The Tractatus* that anyone who understands his propositions must use them as steps to climb up the ladder and then throw the ladder away, if EM’s projections are true, then, ironically and in a fascinating manner, FP and the use of propositional attitudes and language will have played a starring role in the demise of FP and propositional attitudes. FP and propositional attitudes will also have played a starring role in developing new and better ‘neuroscientifically-informed,’ EM-approved language(s) and new inner mental states/conscious/unconscious processes.

This is all to say that, perhaps one day, there will be a story that begins with ‘once upon a time, our ancestors became bipedal and got bigger brains.’ If EM is correct, the story will then continue with a chapter in humans’ evolutionary history devoted to describing a time when humans used FP, and its propositional attitudes, as well experienced non-reductive mental events (if there are any). The story might then continue: Because the stances of people *can* affect some of the things that they are about (including people’s own modes of cognitive and linguistic processing) and because perhaps non-reductive mental events (if there are any) such as FP’s propositional attitudes are causally efficacious (whether or not they are non-reductive), humans willingly and intentionally eliminated from their cognitive abilities both FP and other purportedly non-reductive categories. Moreover, they did so by using those very categories in favour of transforming their mental processes, mental ‘inner’ experience, and language into something else. The question of why humans would willingly do this remains an open one, but my interest does not lay in attempting to provide reasons or motivations for such a move. I have aimed only to defend EM, in a manner different from what has so far been offered in extant literature, from the charge of self-refutation.

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